CPCCo Central Plateau Cleanup Company

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Administrative Procedure

CPCC-PRO-QA-052

PRC-PRO-QA-052

Issues Management

Revision 0, Change 2

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- Central Plateau Surveillance and Maintenance :
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- PFP Ancillary Structures :
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- Plutonium Finishing Plant :
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- Solid Waste Operations Complex :
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- Transportation :
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- Waste Encapsulation Storage Facility :
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Change Summary

Description of Change

Update RadCon documents with new numbers and titles.

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1.0 INTRODUCTION

1.1 Purpose

This procedure implements the Central Plateau Cleanup Company (CPCCo) Quality Improvement element of the CPCC-MP-QA-599, *Quality Assurance Program*. The procedure establishes the requirements and responsibilities for the identification, evaluation and resolution of events, conditions, or opportunities for improvement and the process to document preventive and remedial (collectively, corrective) actions, as well as actions to address improvement opportunities.

The Issues Management (IM) process provides a mechanism to ensure that adverse conditions (such as failures, malfunctions, deficiencies, deviations, events) are promptly identified and corrected. This process supports the CPCCo Integrated Safety Management/Environmental Management System Core Function/Elements of Feedback and Improvement.

1.2 Scope

Events, conditions, recommendations, or opportunities for improvement related (but not limited) to the following, are common sources for entry into the IM process.

NOTE: *For any CPCCo procedure/process that currently directs the initiating or submittal of a Condition Report (CR) into CRRS, that statement would equate to the initiation of an Action Request (AR) in the Integrated Contractor Assurance System (iCAS) up until such time those procedures/processes are revised to reflect the new Issues Management system.*

- Assessment Reports, e.g., independent assessments (CPCC-PRO-QA-9662, *Independent Assessment Process*), management assessments (CPCC-PRO-QA-246, *Management Assessment*), self-assessments (CPCC-PRO-QA-40090, *Self Assessment*), management observations (CPCC-PRO-QA-40099, *Management Observation Program*), and surveillances (CPCC-PRO-QA-9769, *Surveillance Process*). (Includes Office of Civilian Radioactive Waste Management (OCRWM) related issues)
- Occurrence Reports (CPCC-PRO-EM-060, *Reporting Occurrences and Processing Operations Information*).
- Radiological Issues (CPCC-00175, *Central Plateau Cleanup Company Radiological Control Manual*).
- Selected Stop Work issues/actions (DOE-0343, *Hanford Site Stop Work Procedure)* as determined by CPCCo management.
- Critique Reports (CPCC-PRO-EM-058, *Event Initial Investigation and Critique Meeting Process*).
- Non-confidential issues related to employee concerns or employee discipline.
- Deficiencies identified during the Implementation Validation Process (IVR checklist, Management Assessment) (CPCC-PRO-NS-8317, *Safety Basis Implementation and Maintenance*).
- Emergency Preparedness Site Exercises (CPCC-PRO-EM-7647, *Emergency Preparedness Program Requirements*).

- Project/Facility Drills performed to evaluate Emergency Response Organization performance, e.g., corporate or U.S. Department of Energy (DOE) audit team conducted drills.
- Readiness Review Findings and Observations (CPCC-PRO-OP-055, *Startup Readiness*).
- DOE Richland Operations Office (DOE-RL) operational awareness (OA) reports, surveillances, and assessments.

Excluded from the IM process are:

- Safeguards and Security (SAS) Sensitive Issues Tracking System (SITS) issues (indicating SAS system weaknesses) (HMIS-PRO-SEC-50701, *Managing Safeguards and Security Deficiencies*).
- Confidential Employee Concerns (DOE-400 *Hanford Site-Wide Employee Concerns Program*) and discipline-related issues (CPCC-PRO-HR-033, *Employee Discipline*).
- Civil penalties in dispute resolution (e.g., Notice of Violation, Enforcement Letter, Consent and Compliance Orders). These types of issues are managed by contractual correspondence.
- Business-sensitive/Official Use Only (OUO) information.
- Classified information.
- Bargaining unit agreement issues.
- Employee personnel file information.
- Maintenance activities tracked in the work control system.
- Nonconformance Reports, unless programmatic or systemic issues are identified.
- Environmental data issues addressed using SGRP-PRO-SMP-50015, *Sample Management and Reporting Sample Issue Resolution and Problem and Discrepancy Process*.

1.3 Applicability

This procedure is applicable to CPCCo and subcontractor personnel subject to the CPCCo Quality Assurance (QA) Program. This procedure is not applicable to those CPCCo subcontractors with approved quality improvement processes.

1.4 Implementation

This procedure is effective upon document effective date.

2.0 RESPONSIBILITIES

Responsibilities associated with this procedure are identified in the process steps.

3.0 TRAINING

NOTE: *The issues management process is managed and issues documented within iCAS Issues Management module, a web-based automated system. Tutorials are available through the Contractor Assurance & Regulatory Reporting web site (http://cpc.cpcco.rl.gov/rapidweb/ca/index.cfm?pagenum=1).*

3.1 Roles and Specific Training Requirements

Specific training is required to implement some portions of this procedure. The training requirements are dependent on the management or process roles. Listed below are the roles and specific training requirements:

3.1.1 Qualified Root Cause Team Leader

- *CPCCo Root Cause Evaluation Team Leader*, Qualification Card 600084
- *CPCCo Cause Evaluator Training,* Course 600081

3.1.2 Cause Evaluator

- *CPCCo Cause Evaluator Training*, Course 600081

3.1.3 Responsible Manager (including Delegate/Optional Verifier and Project Administrator)

- *Responsible Manager Issues Management*, Course 600082

3.1.4 Effectiveness Review Lead

- *CPCCo Cause Evaluator Training*, Course 600081

-OR-

- *Responsible Manager Issues Management*, Course 600082

3.1.5 Corrective Action Review Board Chair

- *Responsible Manager Issues Management, Course 600082*

-OR-

- *CPCCo Issues Management Process – Senior Management*, Course 600083

4.0 PROCESS

NOTE:
- *CPCCo has established specific management performance goals. These goals include those embedded/coded in the IM software or stated by management to establish and gauge performance. Table 1 below defines completion date goals for Action Requests (AR).*
- *Managers should maintain awareness of these performance goals.*

Table 1 – Performance Goals

Activity	Goal
AR Submittal	*Within five working days of issue identification.*
Level A or B Plan Approval (Responsible Manager approval of corrective actions or evaluation)	*Within 60 calendar days of screening date unless a shorter time period is specified.*
Level C or D Plan Approval (Responsible Manager approval of corrective actions or evaluation)	*Within 45 calendar days of screening date unless a shorter time period is specified*

NOTE: *See the iCAS computer-based tutorials on the Contractor Assurance and Regulatory Reporting web page for additional guidance on completing the AR fields and uploading file(s).*

NOTE: *This document has eleven principal sections (4.1 – 4.11) that describe the various administrative efforts required to address issues management. Each is written as a standalone section that may be used independently of the others. Sections within each principal section may be omitted if appropriate.*

4.1 Action Request Initiation

This procedure establishes a process for personnel to report/identify any issue or recommendation by initiating an AR. An AR should be initiated for issues (as well as noteworthy practices) that may require evaluation, trending, cause determination, or identification and tracking of actions. The process then allows for appropriate management of the subsequent action items via the web-based system iCAS.

A new AR is submitted for each DOE-RL Adverse Condition (AC), or Opportunity for Improvement (OFI) identified in DOE-RL OAs, Assessments, and Surveillances. Although not required, the submittal of RL identified Strengths (S) is highly encouraged.

This procedure supports the accumulation of potential issues until the scope or validity of the issue is known. Additional investigation or research may be appropriate to enhance the ability to determine the issue significance. The expectation is that the issue will be documented when there is a reasonable belief that an issue exists and that it can be documented in an AR.

The AR/CR process does not replace or preclude appropriate response or notifications to management of problems or events.

ARs may be submitted by providing information to Issues Management (by email at ^CPCCO Issues Management) for subsequent entry into ICAS.

Actionee	*Step*	*Action*
Initiator	1.	ACCESS iCAS at the ESH&Q web page, AND SELECT the link titled “Action Request.”

NOTE:
- *When entering information concerning individuals involved in the issue into the ICAS, job titles or functional descriptions should be used instead of identifying individuals by name.*

2. POPULATE the appropriate fields on the “New Action Request” screen.
   - ENTER a description of the issue, recommendation, or opportunity for improvement,
   - ENTER the following information (Required):
     - Date issue identified (Date Identified)
     - Actions already taken [Immediate Action(s) Taken (State if not known)]
     - Requirement or published management expectation (or N/A or "None" if applicable
     - Initiating document if any (upload a copy - N/A if none)
     - Document type (including None)
     - Assigned Organization
     - Primary Project
     - Other reference documents, if any (Upload)
3. SELECT the “Submit” button to enter the AR into ICAS.

4.2 Action Request Screening

The AR is screened to determine the organization best suited to manage the issue, to establish the initial significance level of the issue, and to document functional areas. Screening is performed by IM representatives and appropriate program and project subject matter experts (SMEs), as needed, who recommend screening decisions to the Manager of Contractor and Quality Assurance (CQA).

The AR is reviewed and discussed (as needed) to ensure that mutual understanding of the issue is obtained; this may include clarification of items documented on the AR. These process steps assign a Responsible Manager, characterize the AR for significance level, and establish initial functional areas for trending.

The preferred method of reaching screening decisions is through consensus. However, if a decision on significance level or assignment cannot be reached, the decision is presented, successively, to the Manager, CQA, and Director of Environment, Safety, Quality and Health (ESH&Q), for final determination. Once the AR is screened, the AR closes and ICAS transfers it to a CR.

The Responsible Manager may request the CR be rescreened or assigned to another organization by sending an email request to the ICAS administrator. Re-assignment will be completed when the originally assigned Responsible Manager reaches agreement with the receiving Responsible Manager.

Actionee	*Step*	*Action*
ICAS Administrator	1.	REVIEW each AR along with the immediate actions implemented to date.
	2.	CONTACT the initiator, Responsible Manager, and SME, as necessary, to obtain sufficient information for screening.
	3.	DETERMINE significance level using Table 2.
	4.	IF a Screen Out, THEN INFORM the initiator.
	5.	IF not a Screen Out, THEN COMPLETE the following AR fields: • Functional Areas • Price-Anderson Amendments Act (PAAA) screening (as determined by PAAA Compliance Officer) • Significance Level • Responsible Manager • AR Screening Justification • Internal/External Document (if not completed)
NOTE: *The act of submitting the screened issue to the Responsible Manager creates a CR from the AR.*		
	6.	SAVE the AR Screening Fields, AND SUBMIT the CR to the Responsible Manager.
	7.	Generate a daily report of screened ARs in accordance with CPCC-CHRT-MS-40017, *Safety Analysis Center Charter.*
ESH&Q	8.	IDENTIFY specific CRs to Issues Management that may warrant program oversight of corrective action development and closure authority.
ICAS Administrator	9.	INFORM CR Responsible Manager of program oversight when selected, ADD an action to the CR for Program Closure Review, AND IDENTIFY CR number for Program Closure Approval.

Table 2 – Issue Significance Determination

Criteria for establishing issue significance include the following aspects:

1. Impact on environment, safety, health; safeguards and security; cyber security; emergency management; or quality.
2. Impact on reliability, availability, or maintainability of equipment or a facility.
3. Importance in meeting regulatory commitments.
4. Consequence of recurrence.
5. Extent to which a condition may apply to other items or activities beyond the specific event where it may have greater impact.
6. Consequences (potential, actual, or both) of the issue.
7. Impact of the issue on mission risk.

Note: OCRWM related issues meeting the definition of a Significant Condition Adverse to Quality contained in Appendix I are screened at Level A. OCRWM related issues screened as Condition Adverse to Quality are screened at a minimum of Level C but may require additional analysis.

Level	Definitions and Examples
A	An issue that has high potential or actual consequence to project or mission, or could have a serious effect on the environment, safety or health, safeguards and security, cyber security, emergency management, or quality. Examples include: • Any issue determined by senior management that needs to be processed as Level A. • A programmatic breakdown of a Safety Management Program. • Any issue reportable as an Occurrence Reporting and Processing System (ORPS) Reporting Level High (RL-H). o The RL Facility Representative (RL-FR) may waive the root cause analysis for RL-H ORPS reports on a case-by-case basis (i.e., when the benefit of root cause evaluation is not necessary to develop corrective actions to prevent recurrence, and an apparent cause determination is adequate). Such waived issues will be screened as Level B. o Regardless of ICAS screening level, RL-H ORPS occurrences will require an Effectiveness Review be performed.
	• Price Anderson Amendment Act (PAAA)/10 CFR 851 reportable issue(s) (Noncompliance Tracking System [NTS] reportable conditions). Refer to CPCC-PRO-NS-2243, *Identification, Reporting, and Tracking of Nuclear Safety and Worker Safety and Health Requirement Non-compliances & PAAA/Worker Safety and Health Enforcement Activities*. • An issue with broad, negative impacts to operations, maintenance, projects, programs, training, or quality processes (programmatic breakdown).

Level	Definitions and Examples
	• Escalating issues, including chemical or radiological exposures, which generate (or have the potential to generate) a high level of concern to management, the workforce, or stakeholders. • Deficiencies in design, manufacturing, construction, testing, or processes requiring substantial rework, repair, or replacement. • Any issue resulting in a serious failure or breakdown in the implementation of program requirements or regulatory commitments. • Ineffective recurrence control for a previous CR for which a Root Cause Evaluation (RCE) was performed. • Repeated attempts to resolve a grouping of similar CRs where corrective actions have been ineffective; repeated failure to implement a portion of an approved procedure. • Damage to a structure, system, component, or facility requiring substantial repairs. • A trend with the potential for serious impact on the environment, safety or health, safeguards and security, cyber security, emergency management, or quality. • OCRWM related issues (Significant Conditions Adverse to Quality) meeting the criteria above or the supplemental criteria contained in Appendix I.
B	An issue that involves lesser significance and effect on the environment, safety, health, safeguards and security, cyber security, emergency management, or quality. An issue for which the cause is not readily identifiable at the time of discovery and further evaluation is warranted. These are usually associated with personnel safety impact, or a failure to meet a requirement resulting in actual impacts to project or mission. Examples include: • Any issue categorized as a Reporting Level Low (RL-L), or Group 10(2) Near Miss ORPS reportable event. ○ Specific to RL-L and ORPS Group 10(2) Near Miss events, management may petition in writing to CPCCo Issues Management a request to rescreen these reports to Level C at a minimum. The request must contain a justification for the change in screening level. This change will not provide relief of performing an Apparent Cause Evaluation.
	• Discovery of any defective barrier item or material that has significant degradation where no failure has occurred, but where failure is likely to result in a loss of safety function, or present a hazard to public or worker health and safety. • Completed records that contain non-editorial errors that adversely affect the technical content of the record.

Level	Definitions and Examples
	• Repeated attempts to resolve a grouping of similar CRs for which corrective actions have been performed but have been ineffective. • A trend with low potential for serious impact on the environment, safety or health, safeguards and security, cyber security; emergency management, or quality. Procedure noncompliance with demonstrated negative effects upon project or facility operations. • OCRWM related issues representing a failure, malfunction, deficiency, defective item, or nonconformance with requirements, for which the cause is not readily identifiable.
C	A noncompliance, performance issue or a trend that has minimal impact on the environment, safety or health, safeguards and security, cyber security, emergency management, or quality where the cause is well understood. Examples include: • An issue that represents low risk or consequence to the project or activity. • An issue documented on a CR to track completion of an action only. • Any issue documented under ORPS Group 9 (this can be Trend Only on a case-by-case basis). • Readiness Assessment findings (both Pre-Start and Post-Start) are screened as Level C at a minimum. Additionally, any Pre or Post-Start findings must be evaluated for cause, using a formal methodology, and objective evidence must be provided for closure of actions. • Any failure to follow a prescribed hazardous energy control process (e.g., Technical Error) that did not result in potential worker exposure to hazardous energy that is below ORPS reportable levels. o A Technical Error is defined as the failure to properly execute a hazardous energy control process requirement that could have resulted in hazardous energy being present, unidentified, in the work location but was prevented by other credited process controls (i.e., technical review, installation, verification, safe condition check, safe-to work check.) • OCRWM related issues representing a failure, malfunction, deficiency, defective item, or nonconformance with requirements, for which the cause and corrective actions are apparent.
D	Recommendations, suggestions, or opportunities for improvement. An issue that does not meet the definition of a noncompliance. Examples include: • A potential improvement to a process or procedure. • Records that need additional information, but do not represent procedural non-compliances or contain errors. • A trend that requires further investigation or monitoring. • A potential conflict or gap between procedures or processes.

Level	Definitions and Examples
	• A suggestion or report identifying process or procedure improvements, program enhancement, Lessons Learned, or continued quality improvements or recommendations. • Positive or noteworthy practices.
Close to Trend	An issue that individually is of minor consequence including a noncompliance that has minimal impact on the environment, safety, health, safeguards and security, cyber security, emergency management, or quality and where appropriate actions have been taken. Examples include: • The stated actions have addressed the issue and no further action is required including any actions to mitigate the issue for recurrence. • The issue will be corrected through the work control process and has an active work package number assigned. • Positive or noteworthy practices. • Due to the nature of the issue(s), no further resources are being expended/required. However, screening and trending of these issue(s) is necessary to allow for the detection of similar issues so that they can be addressed before they escalate into more significant issues.
Screen Out	An issue that meets one of the following attributes: • Factually inaccurate as demonstrated by evidence, witness, or fact, and after discussion with initiator. • An issue outside of CPCCo's authority to resolve. • A duplicate issue already processed through ICAS. • An issue excluded from the CR process (refer to list in section 1.2). • Any Screen Out of a Pre or Post-Start Finding from a Contractor RA/ORR must include concurrence of the CPCC-PRO-OP-055 Technical Authority. Findings or Observations from a DOE Readiness Review will not be screened out.

Table 3 – Other Document Categories

Flag	Issue
DOE Corrective Action Plan (CAP)	An issue related to a DOE formal assessment activity or other external activity, where DOE has requested a CAP or formal response.
OCRWM Related	An OCRWM related issue determined to be a Condition Adverse to Quality or a Significant Condition Adverse to Quality
DOE / External Issue	An issue identified by DOE or other external agency. This includes issues submitted (documented) by CPCCO that result from information from an external agency. Include the external agency document number, if known/available.
Long-term Condition Report (LTCR)	A CR that includes actions associated with work scheduled to be addressed six months or more in the future. The CR may be identified for exclusion from IM aging and timeliness metrics based on the nature of the remaining actions. (See criteria provided in Section 4.6.1.)
Suspended-work Condition Report (SWCR)	A CR that is placed in an inactive status as a result of limited or changed project mission. Because of the inactive status, SWCRs are excluded from IM aging and timeliness metrics. (See Section 4.6.2.)

4.3 Condition Report Evaluation

This section is subdivided into process steps corresponding to each significance level. Each subsection describes the steps required to evaluate the CR, develop (plan) actions, and review the CR.

Regardless of the significance level associated with a CR, it is good business practice to discuss the issue with the initiator to ensure that it is understood.

NOTE: *Prior to assigning CR responsibility or action to an individual external to the Responsible Manager's organization, concurrence should be reached with the assignee/actionee's supervisor or manager.*

Regardless of the CR significance level, if a formal CAP is required to be provided to DOE to address the issue identified in the CR, then COORDINATE with the Manager, CQA to ensure the evaluation, action statements and closure requirements align with applicable process requirements and expectations included in this procedure.

4.3.1 Level A Condition Reports

Level A CRs require an in-depth understanding of the cause(s) of the condition and the extent of condition (EOC), and development and completion of remedial and preventive actions. These conditions may also require interim (immediate/compensatory) actions that would, for example, establish measures that would allow work to continue. (See Table 2 for a discussion of significance levels and examples.)

Actionee	Step	Action
Responsible Manager	1.	Upon receipt of the CR, REVIEW the issue AND CONTACT the initiator if necessary to ensure the issue is understood prior to evaluation.
	2.	PERFORM one of the following actions: • DIRECT performance of an RCE. (See Section 4.101.) • REQUEST RETURN of CR to Screening with justification/rationale for rescreening the significance level or assigning a different Responsible Manager.
	3.	IF the CR is reportable in the National Tracking System (NTS), THEN COORDINATE with the Manager, CQA, to ensure the evaluation, action statements and closure requirements meet NTS reporting expectations and for NTS action designation.
	4.	IF a formal CAP is required to be provided to DOE to address the issue identified in the CR, THEN COORDINATE with the Manager, CQA to ensure the evaluation, action statements and closure requirements align with applicable process requirements and expectations contained in this procedure.
	5.	IF the issue is OCRWM related, THEN INCLUDE a final action for the OCRWM Program Coordinator to verify actions are complete and to compile the file for submittal to Records Holding Area in accordance with CPCC-PRO-QA-19579, *OCRWM Records Management.*

NOTE:
- *The Corrective Action Review Board (CARB) is an extension of the Executive Safety Review Board (ESRB) (CPCC-CHRT-MS-40016) tasked with review of cause evaluation. (Appendix E, "Corrective Action Review Board," describes the CARB.)*
- *Available action types are: Interim (Immediate/Compensatory), Improvement, Other, Remedial, Preventive and Effectiveness Review. (See Appendix I for definitions of these types.)*

Cause Analyst/Root Cause Team Leader	6.	Upon approval by the RM/CARB/ESRB (as appropriate), DOCUMENT the following in the CR: • Evaluation results • EOC • Cause evaluation tool(s) used • Cause code(s) • Action statement, actionee, and action type • Due date • Closure requirements

Actionee	Step	Action
NOTE:		*NTS actions require PAAA Compliance Officer approval prior to management approval to close the action.*
Cause Analyst/Root Cause Team Leader	7.	IF an action has been completed at time of initiation, THEN INCLUDE: • Action taken statement • Objective evidence as determined by specified closure requirements • Completed date
	8.	IF this is an NTS CR, THEN FLAG NTS corrective actions to ensure they are clearly identified.
NOTE:		*The effectiveness review is generally performed three to six months after the completion of the last preventive action in the CR.*
	9.	DOCUMENT an action to perform an Effectiveness Review. (See Section 4.11.)
	10.	SUBMIT for electronic approval.
Responsible Manager	11.	APPROVE CR as submitted in iCAS or route for revision. (See Appendix B for verification and review/approval expectations.) If the CR or any of its action closures/additions are approved by a delegate/optional verifier at any time, the delegate/optional verifier must be a manager.

4.3.2 Level B Condition Reports

Resolution of Level B CRs requires an understanding of why the condition occurred (apparent cause evaluation [ACE], as a minimum) and the EOC, as well as development and completion of remedial and preventive actions. These conditions may also require interim (immediate/ compensatory) actions that would, for example, establish measures that would allow work to continue. (See Table 2 for significance levels and examples.)

Actionee	Step	Action
Responsible Manager	1.	Upon receipt of the CR, REVIEW the issue AND CONTACT initiator if necessary to ensure the identified issue is understood prior to evaluation.
	2.	PERFORM one of the following actions: • DIRECT performance of an ACE OR RCE. (See Section 4.102, *Apparent Cause Evaluation*, or Section 4.101, *Root Cause Evaluation*.) • REQUEST CR be rescreened with justification/rationale for rescreening the significance level or assigning a different Responsible Manager.

Actionee	*Step*	*Action*
Responsible Manager	3.	IF the CR is reportable in the NTS, THEN COORDINATE with the Manager, CQA, to ensure the evaluation, action statements and closure requirements meet NTS reporting expectations and for NTS action designation.
	4.	IF a formal CAP is required to be provided to DOE to address the issued identified in the CR, then COORDINATE with the Manager, CQA to ensure the evaluation, action statements and closure requirements align with applicable process requirements and expectations contained in this procedure.
	5.	IF the CR documents an issue identified as an RL-H ORPS Reportable event/issue, THEN INCLUDE an action to perform an effectiveness review in accordance with Section 4.3.1.9.
	6.	IF the issue is OCRWM related, THEN INCLUDE a final action for the OCRWM Program Coordinator to verify actions are complete and to compile the file for submittal to Records Holding Area in accordance with CPCC-PRO-QA-19579.

NOTE:
- *The CARB is an extension of the ESRB tasked with review of cause evaluation. (Appendix D describes the CARB.)*
- *Available action types are: Improvement, Other, Remedial, Preventive and Effectiveness Review. (See Appendix I for definitions of these types.)*

Cause Analyst	7.	Upon approval by Responsible Manager/CARB/ESRB (as appropriate), DOCUMENT the following in the CR: • Evaluation results • EOC • Cause evaluation tool(s) used • Cause code(s) • Action statement, actionee, and action type • Due date • Closure requirements
	8.	IF an action has been completed at time of initiation, THEN INCLUDE: • Action taken statement • Objective evidence as determined by specific closure requirements • Completed date

NOTE: *NTS actions require PAAA Compliance Officer approval prior to management approval to close the action.*

	9.	IF this is an NTS CR, THEN FLAG NTS corrective actions to ensure they are clearly identified.

Actionee	Step	Action
Responsible Manager	10.	APPROVE CR as submitted in iCAS. (See Appendix B for verification and review/approval expectations.) If the CR or any of the action additions/closures are approved by a delegate/optional verifier at any time, the delegate/optional verifier must be a manager.

4.3.3 Level C Condition Reports

Level C CRs generally involve the remediation of one or more issues. These are often referred to as "find and fix" issues. Cause evaluation is not required, but may be completed if determined appropriate by the Responsible Manager. If the Responsible Manager requests a cause evaluation to be performed, a formal methodology must be used and either documented within the analysis section of the CR or uploaded to the CR. Cause codes are not applied to Level C CRs unless a cause evaluation is performed. (See Table 2 for a discussion of significance levels and examples.) Extent of Condition is not required, but should be considered. Objective evidence for closure of corrective actions is recommended, but not required.

Actionee	Step	Action
Responsible Manager	1.	Upon receipt of the CR, REVIEW the issue AND CONTACT initiator if necessary to ensure the identified issue is understood prior to evaluation.
	2.	PERFORM the following actions: • IDENTIFY assignee (can be Responsible Manager), OR • REQUEST the CR be rescreened with justification/rationale for rescreening the significance level or assigning a different Responsible Manager.
	3.	IF a formal CAP is required to be provided to DOE to address the issue identified in the CR, then COORDINATE with the Manager, CQA, to ensure the evaluation, action statements, and closure requirements align with applicable process requirements and expectations.
Assignee	4.	REVIEW the issue, AND DEVELOP actions. (See Appendix A, "Developing Actions.")

NOTE: *Available action types are: Other, Remedial, Preventive, and Effectiveness Review. (See Appendix I for definitions of these types.)*

	5.	DOCUMENT the actions in the CR: • Action statement, actionee, and action type • Due date • Closure requirements

Actionee	*Step*	*Action*
Assignee	6.	IF action has been completed at time of entry, THEN INCLUDE: • Action taken statement • Objective evidence as determined by closure requirements • Completed date
	7.	IF the issue is OCRWM related, THEN INCLUDE a final action for the OCRWM Program Coordinator to verify actions are complete and to compile the file for submittal to Records Holding Area in accordance with CPCC-PRO-QA-19579.
	8.	SUBMIT for approval.
Responsible Manager	9.	Upon receipt of the action plan, PERFORM one of the following actions: • APPROVE the action plan. • RETURN the action plan to the assignee with direction in the Comment Block as to what changes need to be made.

4.3.4 Level D Condition Reports

Level D Opportunities for improvement and recommendations are managed in accordance with this procedure or routed to other processes for resolution. These issues do not represent a noncompliance; therefore, cause coding and corrective actions are not required. Responsible Managers may choose to take no action. (See Table 2 for a discussion of significance levels and examples.)

Actionee	*Step*	*Action*
Responsible Manager	1.	Upon receipt of the CR, REVIEW the issue AND CONTACT the initiator if necessary to ensure the identified issue is understood prior to evaluation.
	2.	IF a formal CAP is required to be provided to DOE to address the issue identified in the CR, then COORDINATE with the Manager, CQA, to ensure the evaluation, action statements, and closure requirements align with process requirements and expectations.

NOTE: *Uploading a supporting document for additional justification can be utilized **(but not required)** along with the "no action" button. If uploading supporting documentation, it must be done PRIOR to using the "no action" button.*

	3.	PERFORM one of the following actions:
		
		• CLOSE the issue having determined that no action is to be taken.
		  ○ IF closing the CR using the "no action" button,
		  THEN PROVIDE the rationale for no action in the justification block.

Actionee	Step	Action
Responsible Manager		• IDENTIFY assignee (can be Responsible Manager). • REQUEST CR be rescreened with justification/rationale for rescreening the significance level or assigning a different Responsible Manager.
	4.	REVIEW the issue AND DETERMINE if improvement action(s) will be taken.
	5.	IF determined no action will be taken, THEN DOCUMENT the decision/rationale as an action in the CR.
	6.	DEVELOP improvement action(s). (See Appendix A, "Developing Actions.")

NOTE: *EOC and Cause Code, entries are NOT required.*

	7.	ENTER the action(s) AND SUBMIT for approval.
	8.	Upon receipt of the action plan, PERFORM one of the following actions: • APPROVE the action plan. • RETURN the action plan to the assignee with direction(s) in the Comment Block as to what changes need to be made.

4.3.5 Close to Trend Condition Reports

Close to Trend are those issues where actions have been completed and documented in the CR or require no further action and trend codes have been provided. (See Table 2 for a discussion of significance levels and examples.)

Actionee	Step	Action
IM Administrator	1.	DOCUMENT screening rationale that issue meets requirements for Trend Only including: • ACTIONS are complete and appropriately documented. • CR documents a Positive or Noteworthy Practice.

4.4 Condition Report Action Completion

NOTE:
- *A clear and concise action closure statement states specifically what was done; e.g., "Procedure CPCC-PRO-QA-052 was revised to allow 45 days for performance of evaluation of Level D CRs – see attached file CA-1-closure.pdf."*
- *Files to be uploaded should include the corrective action number in the file name (e.g., CA-1-closure.pdf). Action closure statement(s) should include a reference to the objective evidence file that is uploaded to the CR.*
- *Provide reference to location of OUO information in lieu of attaching it.*
- *Provide reference to procedure (or other documentation/location) with revision number in lieu of attaching it.*

Actionee	*Step*	*Action*
Assignee	1.	DOCUMENT action(s) taken in accordance with the closure requirements.
Compliance Officer	2.	IF NTS action, THEN REVIEW the information provided to ensure the actions taken and objective evidence, as applicable, meet the closure requirements.
	3.	APPROVE the completed action OR RETURN AND PROVIDE direction(s) in the Comment Box as to what actions need to occur to satisfy the closure requirements.
Responsible Manager	4.	Upon receipt of the action taken statement, REVIEW the information provided to ensure the actions taken and objective evidence, as applicable, meet the closure requirements.
	5.	APPROVE the completed action OR RETURN AND PROVIDE direction in the Comment box as to what needs to occur to satisfy the closure requirements.

4.5 Extensions to Due Dates for Corrective Actions

Extensions to action due dates are approved as defined by the significance level as shown in Table 4, below. Extension counts are specific to individual actions.

Proposed changes for any RL-H ORPS Report corrective action require FR approval prior to making the change. Minor administrative changes (e.g. typographical errors) or actionee changes do not require approval.

Actionee	*Step*	*Action*
Responsible Manager or Requestor	1.	IDENTIFY the need/justification to extend an action.
	2.	OBTAIN approval(s) via email. (See Table 4.)
	3.	FORWARD email to IM/Project Administrator.

NOTE: *Extension approval documentation uploaded to iCAS should be clearly identified. Typical naming convention example is CA-1_EX1.*

IM/Project Administrator	4.	PROCESS the requested Change Request in the ICAS module AND UPLOAD approval documentation.

Table 4 – CA Extension Approvals

Extension	Level D	Level C	Level B	Level A
1st	Responsible Manager	Responsible Manager	Level 2 Manager	Level 2 Manager
2nd and subsequent	Responsible Manager	Responsible Manager	Director	Director
A Level 2 Manager reports directly to a Level 1 Manager also referred to as a Director in this procedure.				
Manager, CQA, concurrence is required when date change exceeds that committed to in NTS or external response letter.				
Changes to due dates on corrective actions for CPCCo deliverables related to NTS reportable actions are made by an ICAS Administrator.				
Proposed changes for any RL-H ORPS Report corrective action (including completion dates) require FR approval prior to making the change. Minor administrative errors (e.g. typographical errors) or actionee changes do not require approval.				

4.6 Long-Term Condition Reports/Suspended-work Condition Reports

4.6.1 Long-Term Condition Reports (LTCR)

A LTCR includes actions associated with work scheduled to be addressed six months or more in the future. A CR may be considered long-term when it meets the following conditions:

- The cause(s) and extent have been documented in the CR.
- Interim actions have been completed and verified by the Responsible Manager.
- Completion of the remaining actions will exceed six months due to the associated work scope of the actions or the need to coordinate other work activities with the completion of the actions.
- Justification that the timing of completion of the remaining actions does not represent a substantial environmental, safety or health, safeguards and security, cyber security, emergency management, or quality impact is documented in or uploaded to the CR.
- Review and approval of the Manager, CQA, verifying that justification for the status change has been documented, approved, and uploaded to the CR.

Actionee	*Step*	*Action*
Responsible Manager or Requestor	1.	NOTIFY IM to apply a LTCR designation to the CR.
IM	2.	PROCESS the requested change AND DOCUMENT in CR.

4.6.2 Suspended-Work Condition Reports (SWCR)

A CR is designated as suspended when the work to which it applies is not within the present planning or funding horizon (not to exceed the current Fiscal Year) and any potential ancillary impacts (e.g., safety, environmental, regulatory) have been documented and attached to the CR, along with the following condition:

- Subsequent to the SWCR designation, the CR cannot be accessed by the responsible project until the SWCR designation is removed at the direction of the applicable CPCCo Director.

Suspended CRs shall be reviewed on an annual basis (e.g., the end of the current fiscal year) to determine if the Suspended status should be continued. Due dates should be evaluated and extended as part of this review. This review can be documented in an email and copied to CQA for upload to the CR.

Suspended CRs and all associated actions cannot be modified unless the status of the CR is changed.

PAAA (NTS) Reported issues shall not be suspended.

Actionee	*Step*	*Action*
Director	1.	REQUEST IM to apply a SWCR designation to the CR.
	2.	OBTAIN AND UPLOAD CQA Manager's concurrence verifying that justification for the status change has been documented, approved, and uploaded to the CR.
Responsible Manager	3.	NOTIFY ORPS point of contact of the SWCR designation for ORPS reported issues
IM	4.	PROCESS the requested change AND DOCUMENT in CR.
	5.	PERFORM an annual Work Site Assessment (WSA) to identify current SWCR's AND PROVIDE feedback to the affected projects for evaluation.

4.7 Condition Report Change Process

Changes may include transfers, cancellations, and changes to approved CAP actions. All changes may be made via e-mail correspondence to the ICAS Administrator at the ^CPCCO Issues Management mailbox or the Project Administrator. Approval of changes varies depending on the significance level of the CR and any other related processes and may require multiple approvals for each attribute as follows:

- Changes associated with NTS reportable CRs must be approved by the Manager, CQA and ICAS modifications are made by ICAS administrators.
- Changes made to CRs that document issues identified by an external agency (other than ones resulting from a DOE-RL surveillance OA report) are coordinated with the Manager, CQA.
- Changes made to CRs related to Occurrence Reports may require Facility Representative notification/approval.
- Changes made to ESRB-approved corrective actions (excluding due dates and actionee assignments) require a review approval of the ESRB Chair and are coordinated by the ESRB Facilitator. (See CPCC-CHRT-MS-40016.)

Proposed changes for any RL-H ORPS Report corrective action (including completion dates) require FR approval prior to making the change. Minor administrative errors (e.g. typographical errors) or actionee changes do not require approval.

Actionee	*Step*	*Action*
Responsible Manager	1.	PROVIDE details of the needed change to an ICAS Administrator, via e-mail to the ^CPCCO Issues Management mailbox or to the Project Administrator, that includes the following: • CR number and action number • Change specifics • Justification/rationale for the change • Required approvals (e-mail concurrences or a statement is sufficient)
ICAS or Project Administrator	2.	PROCESS the requested change AND UPLOAD to the CR.

4.8 Condition Report Administrative Closure

Actionee	*Step*	*Action*
Project Administrator	1.	REVIEW the CR AND RESOLVE issues to ensure compliance with this procedure using the points listed in “Condition Report Closure Review” provided in Appendix D.
	2.	VERIFY all actions are complete (corrective actions, program closure, and verification actions, if applicable).
	3.	PREPARE the CR for transmittal to IDMS.
	4.	DESIGNATE the CR as “Closed” within ICAS.

4.9 Cause Evaluation

Table 5 identifies the graded approach to cause evaluation used in this procedure. The completed cause evaluation requires the integration of cause evaluation, EOC, and action planning.

Table 5 – Cause Evaluation Graded Approach

Significance Level	Cause Evaluation Required
Level A	RCE
Level B	ACE or RCE as determined by CR Responsible Manager
Level C	Not Required. May be performed as determined by CR Responsible Manager. If an analysis is performed, a formal methodology must be used.
Level D	Not Required.

4.9.1 Root Cause Evaluation

Actionee	*Step*	*Action*
Responsible Manager	1.	SELECT AND NOTIFY a Root Cause Team Leader.
Director	2.	CHARTER the RCE team by memo or email to include: • Team leader • Team members • Problem statement, including reference to the CR • Proposed schedule • Approval requirements (if other than the Responsible Manager) • RCE team authority to conduct the investigation and evaluation
RCE Team Leader	3.	PERFORM investigation and evaluation.
	4.	PREPARE report. (See Appendix H, "Example Cause Evaluation Report Template.") • Working with Responsible Manager, DEVELOP actions in accordance with Appendix A. • EVALUATE EOC in accordance with Appendix F. • DEVELOP Effectiveness Review Criteria and include in report. Effectiveness Review Criteria are used to guide the Effectiveness Review. (See Section 4.12.)
Responsible Manager	5.	REVIEW report. (See Appendix H, using Appendix C as guidance.)
	6.	OBTAIN CARB or ESRB approval, as appropriate.
RCE Team Leader	7.	UPLOAD RCE report to CR.

4.9.2 Apparent Cause Evaluation

Actionee	*Step*	*Action*
Responsible Manager	1.	SELECT AND NOTIFY a cause evaluator.
Cause Evaluator	2.	PERFORM investigation and evaluation.
	3.	PREPARE report. (See Appendix H, "Example Cause Evaluation Report Template.") • DEVELOP actions in accordance with Appendix A, "Developing Actions." • DEVELOP EOC in accordance with Appendix F, "Extent of Condition Evaluation." • IF evaluating an H Level ORPS Report (and the FR has waived an RCE), THEN DEVELOP Effectiveness Review Criteria and include in report. Effectiveness Review Criteria are used to guide the Effectiveness Review. (See Section 4.12.)
Responsible Manager	4.	REVIEW report. (See Appendix H, using Appendix C as guidance.)
	5.	OBTAIN CARB/ESRB approval, as appropriate.
Cause Evaluator	6.	ATTACH ACE report to CR.

4.10 Effectiveness Review

Effectiveness reviews provide a basis for determining whether the preventive actions implemented to resolve an issue actually provided effective resolution of the issue. In some instances, projects may find it valuable to perform a second follow-up effectiveness review six months to a year following the initial review to gauge the continued effectiveness of corrective actions. If no preventive actions were implemented for the issue, an effectiveness review is not required.

Actionee	*Step*	*Action*
Responsible Manager	1.	When required/requested, ASSURE completion of an effectiveness review. (See Appendix G, "Effectiveness Review.")
	2.	DOCUMENT the Effectiveness Review results in accordance to Appendix G.
	3.	IF actions are determined to be ineffective, THEN DEVELOP additional actions or revise actions in existing CR.
	4.	PRESENT results to CARB/ESRB, as selected.
	5.	UPLOAD the Effectiveness Review document to the CR.

4.11 Reports

Actionee	*Step*	*Action*
ICAS Administrator	1.	GENERATE the following reports: • Listing of actions closed in ICAS during the previous week. • Listing of outstanding RL-identified issues flagged as DOE Corrective Action Plan (CAP). This report shall include the CR number, current status, corrective actions and associated due dates.
Manager, CQA	2.	TRANSMIT generated reports to RL weekly.

5.0 FORMS

None

6.0 RECORD IDENTIFICATION

All records are generated, processed, and maintained in accordance with CPCC-PRO-10588, *Records Management Processes*.

Records Capture Table

Name of Record	Submittal Responsibility	Retention Responsibility
Action Request	Contractor and Quality Assurance	IRM Service Provider
Condition Report (and attached documentation)	Contractor and Quality Assurance	IRM Service Provider

7.0 SOURCES

7.1 Requirements

10 CFR 830.122(c), *Criterion 3-Management/Quality Improvement*
10 CFR 851, *Worker Safety and Health Program*
CPCC-MP-QA-599, *Quality Assurance Program*
CPCC-MP-MS-29238, *Assurance System Description*
DOE M 140.1-1B*, Interface with the Defense Nuclear Facilities Safety Board*
DOE O 226.1B, *Implementation of Department of Energy Oversight Policy*
DOE O 227.1, *Independent Oversight Program*
DOE O 232.2A, *Occurrence Reporting and Processing of Operations Information*
DOE O 414.1D, *Quality Assurance*
DOE O 422.1, *Conduct of Operations*
DOE O 433.1B, *Maintenance Management Program for DOE Nuclear Facilities*

7.2 References

CPCC-00175, *Central Plateau Cleanup Company Radiological Control Manual*
CPCC-CHRT-MS-40016, *Executive Safety Review Board Charter*
CPCC-CHRT-MS-40017, *Safety Analysis Center Charter*
CPCC-MP-MN-40443, *Nuclear Maintenance Management Program (NMMP) Description Document*
CPCC-PRO-EM-058, *Event Initial Investigation and Critique Meeting Process*
CPCC-PRO-EM-060, *Reporting Occurrences and Processing Operations Information*
CPCC-PRO-EM-7647, *Emergency Preparedness Program Requirements*
CPCC-PRO-HR-033, *Employee Discipline*
CPCC-PRO-IRM-10588, *Records Management Processes*
CPCC-PRO-NS-2243, *Identification, Reporting, and Tracking of Nuclear Safety and Worker Safety and Health Requirement Non-compliances & PAAA/Worker Safety and Health Enforcement Activities*

CPCC-PRO-NS-8317, *Safety Basis Implementation and Maintenance*
CPCC-PRO-OP-055, *Startup Readiness*
CPCC-PRO-QA-246, *Management Assessment*
CPCC-PRO-QA-9662, *Independent Assessment Process*
CPCC-PRO-QA-9769, *Surveillance Process*
CPCC-PRO-QA-19579, *OCRWM Records Management*
CPCC-PRO-QA-40090, *Self Assessment*
CPCC-PRO-QA-40099, *Management Observation Program*
DOE-0343, *Hanford Site Stop Work Procedure*
HMIS-PRO-SEC-50701, *Managing Safeguards and Security Deficiencies*
SGRP-PRO-SMP-50015, *Sample Management and Reporting Sample Issue Resolution and Problem and Discrepancy Process*

Appendix A - Developing Actions

Types of Actions

See Appendix I - Glossary.

Developing Actions

Developing actions includes the contribution, collaboration, and agreement of the personnel responsible for performing the actions. The actions meet the SMART criteria; that is, they are:

- **S**pecific - clear, concise, and in sufficient detail to allow personnel directly and indirectly involved to understand the activities to be conducted.
- **M**easurable - activities or mechanisms available to verify completion and determine effectiveness of the completed actions.
- **A**ccountable - specific responsibility for completing action is identified.
- **R**elevant - believably address the cause; reasonable and achievable within the ability of the organization to develop and implement.
- **T**imely - scheduled to be performed within a time period that corrects the identified issue before it worsens, and

Determine that:

- Appropriate preventive action(s) are specified for each cause or that there is an evaluation that no action is necessary.
- The actions are closeable and verifiable.
- The corrective actions have been prioritized with consideration of the risk significance and regulatory compliance.
- A schedule has been established for implementing and completing the corrective actions.
- Quantitative or qualitative measures of success have been developed for determining the effectiveness of the actions to prevent recurrence (effectiveness review criteria).
- The state following the corrective actions is sustainable, for example, the activity performed consistently by all personnel in the future. This may require a process change to institute the action.

The actions are necessary and unintended consequences have been considered.

Words or phrases such as “Determine why/what,” “Evaluate,” “Counsel” or “Review” are more closely associated with determining cause or EOC and indicate that the evaluation and development phase is not complete.

When developing corrective actions, the enhancement of/or addition to training programs should be considered.

OCRWM related issues require the last action be assigned to the OCRWM Coordinator to verify actions are complete and compile appropriate records.

Appendix B - Verification and Review/Approval Expectations

The purpose of verifying the completed actions and accepting, approving, or concurring with (reviewing) the collective set of corrective actions is to provide assurance that the actions resolve the identified issue.

1. Verification of Each Action

    a. Was the individual action taken and documented in the CR, performed as stated in the "Action Taken" section?

    b. Was the intention of the action (in relation to the issue) appropriately implemented? For example, if a procedure was revised, do the changes have sufficient detail to ensure the issue was appropriately addressed?

2. Final Verification

    a. Are all the actions taken and documented in the CR complete? This includes actions already taken [documented as appropriate to the action], actions identified in the initial response, and any actions added subsequently.

    b. Are the previous verifications of individual actions adequate?

3. Review/Approval

    a. Are the investigation, cause and EOC appropriate to the identified issue?

    b. Was the collective and completed set of corrective actions appropriately completed and adequately verified?

    c. Did the collective and completed set of corrective actions satisfactorily resolve the identified issue?

DID THEY SELECT THE RIGHT THING(S) TO DO? DID THEY DO THE RIGHT THING?

The objective evidence for each action should be reviewed. If the evidence is easily retrievable through site documents or records systems, then reference to the document or other retrieval number is acceptable. If the evidence is not easily retrievable, then in addition to referring to the document number, an electronic copy of the document should be attached before submittal to iCAS.

Appendix C - Cause Evaluation and Condition Report Review Worksheet

Condition Report (CR) Number: Reviewer(s):	Significance Level: Date Reviewed:
Feedback Scale: 1 = Below expectations; 2 = meets expectations with some improvement needed; 3 = fully meets expectations	
Problem Statement	Scale

• Was a specific, concise, and objective problem statement developed containing the following essential elements?
  • State what, who, when, and where
  • Identify the actual or potential consequences of the condition (what was the impact)
  • Refrain pre-suppose causes(s) or corrective actions (s)
• Was the scope of the identified problem appropriately bounded to allow for targeted data collection consistent with the significance of the issue?	

Comments (strengths and weaknesses)	
Event Description/Background Information	Scale
• Was the sequence of events listed, an event narrative stated, or a timeline developed (as applicable)? • Was information and data (physical evidence, interviews, records, and documents) related to the event included, as necessary, to provide a clear understanding of the issue? • Was the summary written in a manner that a reviewer without direct experience with the issue could reasonably understand the condition? Were acronyms spelled out throughout the document?	
Comments (strengths and weaknesses)	
Cause Determination	Scale

• Was the apparent/root cause team leader trained/qualified.
• Was the apparent/root cause method(s) described?
• Were the apparent/root causes clearly stated and linked to plausible cause code(s)?
• Were the direct cause, contributing cause(s), and apparent/root cause(s) determined by analyzing the event/condition and each cause factor?
• Did the apparent/root cause(s) meet the definitions:
  ○ APPARENT CAUSE: The most probable cause(s) that explains why the event happened, that can reasonably be identified, that local or facility/program management has the control to fix, and for which effective recommendations for corrective action(s) to remedy the problem can be generated, if necessary
  ○ ROOT CAUSE: The causal factor(s) that, if corrected, would prevent recurrence of the occurrence. It is the most basic cause that explains why the event	

Appendix C – (Cont.)

happened, that can reasonably be identified, that senior management has the control to fix, and for which effective recommendations for corrective actions to remedy the problem, prevent specific recurrence of the problem, and preclude occurrence of similar problems can be generated, if necessary. • Was the evaluation sufficiently documented in that the conclusions reached were plausible? • Did the apparent/root cause(s) rely on factual information (not counterfactual assumptions)? • Was issue evaluated from people, program/process, management, and organizational perspective, as appropriate to the issue? • Was the scope of the evaluation/level of effort consistent with the significance of the issue? • Was the cause description(s) the same as identified in the analysis results?	
Additional questions specific to RCEs	Scale
• Were a minimum of two methodologies used that were appropriate to the issue? • Were the ICAS and/or ORPS databases searched to determine similar events or conditions? • Was the effectiveness of past assessments evaluated and results incorporated into the analysis (as applicable)? • Did the evaluation determine whether corrective actions for previous similar conditions were implemented for those conditions? • For repeat events, did the evaluation consider why any previous evaluations and associated corrective actions failed to prevent recurrence and use this as part of determining the root cause and corrective actions? • Was a plan, scope, or criteria included in the CR or cause evaluation report to assist in the performance of an Effectiveness Review for this issue (i.e., a definition of what success will look like when the identified action[s] are implemented)?	
Comments (strengths and weaknesses)	
Extent of Condition Review	Scale
• Was the EOC consistent with the significance/relative consequence of the problem? • Was the bounding of the EOC described and plausible? (Root Cause bounded at program and activity level? Apparent Cause bounded at activity level?) • Were the results of the EOC clearly described? • Were corrective actions developed to address the EOC, or, if the EOC indicated further analysis is likely warranted, are follow-up actions defined?	
Comments (strengths and weaknesses)	

Appendix C – (Cont.)

Corrective Actions	Scale
• Were compensatory actions put in place appropriately to mitigate potential impacts during evaluation and corrective action implementation? • Were actions developed to address the identified condition, contributing cause, apparent/root cause, and EOC? • Are Specific, Measurable, Achievable, Relevant, Timely (SMART) actions for each cause? • If applicable, are SMART preventive actions identified for each Root Cause? • Does the action matrix clearly map action(s) to applicable cause(s) (cause/action relationship)?	
Comments (strengths and weaknesses)	

	Root Cause Evaluations	Apparent Cause Evaluations
Total Point Score		
Total Percentage		
Overall Comments		

RCE Scoring: Below 12 points: Does not meet expectations; 12 – 15 points: Meets expectations with some improvement needed; 16 - 18 points: Fully meets expectations
ACE Scoring: Below 10 points: Does not meet expectations; 10 – 12 points: Meets expectations with some improvement needed; 13 – 15 point: Fully meets expectations

Appendix D - Condition Report Closure Review Guidance

General

Spell check the CR.

Analysis Section

For Level B Issues, are the required fields populated (Evaluation Results, EOC, Cause Evaluation Tool, and Cause Codes? Note: Cause evaluation is sometimes uploaded as a separate file; this should be noted in the results field.

For Level A Issues, are the required fields populated (Evaluation Results, EOC, Cause Evaluation Tools, and Cause Codes)? If CR went before the ESRB, the ESRB-approved Root Cause Evaluation report should be uploaded.

Corrective Action Section

Does the closure statement in the Actions Taken block match the assigned corrective action?

If the Closure Requirements block indicates objective evidence is to be provided (copy of procedure, roster, etc.), has the evidence been provided (uploaded/identified in the action closure statement)?

Attached/Uploaded Files

Do the files include OUO information? If so, redact that information and re-upload or remove if appropriate.

Are attachments named appropriately and easy to locate? Standard file names should identify associated action (example: CA-1-Closure-Training Rosters).

Do Emails have file attachments? The attachments will typically not work when moved to IDMS. The “attachment” will need to be uploaded separately if required for the closure. Scan as .pdf and upload to the CR.

Appendix E - Corrective Action Review Board

1. PURPOSE

The CARB is an extension of the ESRB. As such, cause evaluations scheduled for ESRB review may bypass the CARB. The ESRB is described in CPCC-CHRT-MS-40016. The CARB:

- Reviews and concurs with selected RCEs, monitors timeliness of response to and completion of Level A CRs, and evaluates selected effectiveness reviews for Level A and B CRs.
- Reviews and concurs with selected apparent cause evaluations. The CARB evaluates and selects ACEs to be reviewed.
- Provides a resource for resolution of issues related to the IM program, including conflicts and resource constraints that impact the timely assignment and completion of CRs.

May review trending and other continuous improvement activities and products and provide management direction for project assessment activities.

2. ADMINISTRATION

2.1. CARB membership is composed of the Project/Program Director (Chair) and selected managers. The CARB membership shall be defined. Each CARB member may have pre-designated alternate(s) to act in his or her behalf.

2.2. A quorum of at least the Chair and half the number of members is required to conduct CARB meetings in order to ensure that appropriate viewpoints are represented and that decisions are made after a thorough review. CARB members provide input to decisions. Final decisions are made by the Chair.

2.3. The decisions made by the CARB are documented. Documentation may include topics discussed, decisions, agreements, and the resolution of issues presented to the CARB. Documentation is provided to the members for review prior to the next CARB meeting. Documentation is prepared at an appropriate level of detail to provide a basis for meeting attendees to agree on the results of the meeting. Documentation does not provide the complete transcript of the results of the meeting. Document approval by the CARB Chair constitutes a record of decision made by the CARB.

3. RESPONSIBILITIES

3.1 Chair

The Project/Program Director serves as chair of the CARB and provides final concurrence for the adequacy of related cause evaluations, associated corrective actions, effectiveness reviews, and overall performance.

3.2 Responsible Manager

The Responsible Manager ensures that selected cause evaluations or effectiveness reviews are presented to and if appropriate, approved by the CARB.

Appendix E – (Cont.)

3.3 CARB Members

CARB Members are responsible for:

- Managing activities as assigned and monitoring progress on CRs.
- Attending scheduled meetings on a regular basis and participating in supplemental IM program activities when appropriate or when requested by the CARB Chair.
- Designating alternates to act in their absence.
- Communicating CARB actions, initiatives, and expectations to their organizations.

Acting as champions in promoting the overall success of the IM program and ensuring the active and effective use in their organization.

- Monitoring Root Cause Evaluation, action planning, and issue completion against established expectations.
- Performing CARB functions related to RCEs, including:
  - Problem statements
  - Completed root cause evaluations to ensure adequate causes and actions to prevent recurrence (cause/action relationship)
  - EOC has been identified
  - Evaluation tools utilized and cause/evaluation relationship
  - Adequacy of the developed corrective actions and timeliness for implementation is commensurate with the significance of the problem
  - Effectiveness review criteria
  - Adequacy of effectiveness reviews to monitor the effectiveness of the corrective actions
- Performing CARB functions related to Effectiveness Reviews, including:
  - Scope of the review
  - Methodology used
  - Effectiveness review criteria
  - Adequacy of the data and evaluation
  - Conclusions of the reviewers
  - Recommendations if the conclusion is other than "effective"
- Performing CARB functions related to selected ACEs including:
  - Problem Statements
  - Completed evaluations to ensure adequate cause and actions to address recurrence (cause/action relationship)
  - EOC has been identified
  - Evaluation tools utilized and cause/evaluation relationship
  - Adequacy of the developed corrective actions and timeliness for implementation is commensurate with the significance of the problem

Appendix F - Extent of Condition Evaluation

Note: *Consult the Energy Facility Contractors Group guidance on EOC* http://cpc.cpcco.rl.gov/rapidweb/ca/docs.cfm/6/docs/EXTENT%20OF%20CONDITION.pdf.

A concept of "generic implications" or "extent" is central to corrective action. This EOC concept is expressed in many ways, for instance: EOC, extent of cause, cause of extent, pervasiveness, extent of consequences, broader ramifications, and programmatic extent or simply as "extent."

CPCCo work is done systematically, that is, it is performed to procedures1. Therefore, it is reasonable that an error in a system or procedure that resulted in an issue in one process or product might also result in other issues in the same area or other areas. That is, other similar issues could exist and similar causes could be at work. In order to fully establish measures to assure that issues are promptly identified and corrected, EOC must be considered.

DEFINITION: ***EOC is the range over which an adverse issue exists with other processes, equipment, or human performance; that is, whether a given issue can or has occurred elsewhere.***

EOC focuses on the actual condition and its existence in other places.

EOC evaluations are used to identify the broader implications of an issue--the extent that is not found today tends to be found tomorrow in more expensive ways that raise questions about the organization's commitment to finding its own problems promptly.

Remember: You either find the issue or the issue finds you!
(and usually at a more inopportune and costly time)

EOC answers the question:

1. What are the broader ramifications of the behavior or condition we are dealing with? Or,

Given what you know about this occurrence, what else would you expect to see?

An EOC evaluation is generally performed after the issue has been through a degree of cause evaluation, but it may have some interdependency with the evaluation, resulting in changes to the cause factors.

EOC evaluation is performed as established in the procedure for significance levels. EOC evaluation for Level C CRs may be appropriate to identify and correct similar issues.

Issues that are not A, B or C Level issues, i.e., Level D CRs, generally do not demand EOC evaluations. However, an OFI presented for one area may also be applicable elsewhere.

1 When procedure inadequacies are manifested, it would make sense to look at the work performed in accordance with the inadequate procedure as well as the pervasiveness of those types of inadequacies.

Appendix F – (Cont.)

The EOC evaluation is documented as part of the evaluation:

1. Determine the extent of the condition/cause. Figure 1 presents an EOC structure that may be useful in developing an EOC evaluation approach.

2. Enter the evaluation results or the applicable documentation number (e.g., RCE number) into the "extent" field of the CR.

Clearly indicate entry is EOC (for example, state: "Extent of Condition - After review of other ventilation systems, it was determined that this pressure transmitter is only found in the plant fire service water systems.")

TIP: The reason that you are taking the time and effort to discover the EOC is to correct the issues you have found. Make sure the EOC is considered in your corrective actions.

QUESTIONS and GUIDANCE on PERFORMING EOC

Key questions to consider may include:

Have I seen this before either at my work location or at other sites, from prior experience?

If I am seeing it again, what are the factors resulting in the repetition?

Is the management system deficient in some way since this circumstance occurred? How?

Could other activities and facilities at the site be experiencing the same problem?

To what extent does this problem have an impact or potential impact on the project or activity?

Can this matter affect the ability of the project to conduct work safely and in compliance with requirements?

Potential guidance regarding performance of EOC evaluations includes:

- Treat EOC commensurate with the circumstances of the issue(s) being investigated.
- The Responsible Managers determine the approach to EOC for their investigations in accordance with the requirements provided in this procedure.
- The description of the approach to EOC is incorporated into the CR.
- The approach to EOC is based on the consequences and the factors of the cause evaluation.
- The results of the EOC investigation are reported and acted upon commensurate with their significance.

Appendix F – (Cont.)

Some questions for consideration in planning EOC evaluations are:

- What are the adverse consequences of the event that prompted the EOC evaluation?
- Should we do more investigation of the causation of the already known extents of those consequences?
- Should we pursue the EOC of all of the important adverse conditions manifested by the investigation, or is it acceptable to restrict the EOC evaluation to those conditions that are included in the consequences?
- Should we pursue the EOC of all of the important cause factors manifested by the investigation, or is it acceptable to restrict the EOC evaluation to those cause factors designated as “root causes”?
- When we pursue extent of cause, do we consider all cause factors (both behaviors and conditions) or just conditions?
- When an adverse item is turned up in an EOC evaluation, should we look for its effects?
- When an adverse item is turned up in an EOC evaluation, should we look for the factors that resulted in it?
- Should we pursue indications of previously existing EOC or should we pursue only currently existing items?
- Should we pursue circumstances that would lead to future occurrences?
- To what extent should operating experience (lessons learned) be considered?
- How should the approach to EOC be documented?

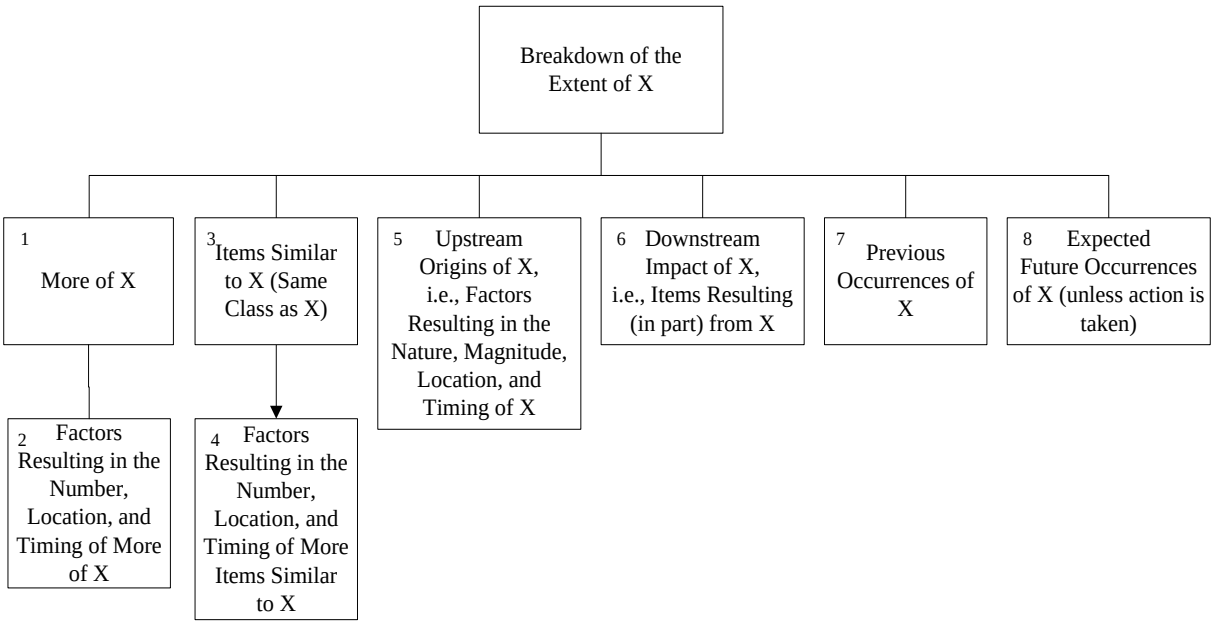
WHY EOC?

EOC evaluation contributes to more accurate identification of the underlying issue. A properly scoped, implemented, and documented EOC evaluation can help identify and correct problems before the problems become events. The EOC evaluation can save project resources and create a safer, better managed work environment. Finding a problem now is better, cheaper, safer than finding it in an operational readiness review, or during operations.

Appendix F – (Cont.)

Elements of Extent
(of Condition/Cause)

X = A Behavior or Issue



AN EXAMPLE

- If X is a welder using the wrong weld wire, then:
- Block 1 asks, how many more welders are using the wrong weld wire?
- Block 2 asks, what are the factors resulting in the number, location, and timing of welders using the wrong weld wire?
- Block 3 asks, what similar items could the welders be improperly using, such as wrong current settings, wrong backing strips, welders using other wrong stuff?
- Block 4, like Block 2 asks, what are the factors resulting in the number, location, and timing of items similar to welders using the wrong weld wire?
- Block 5 is answered by the event investigation.
- Block 6 asks, how many welds were made with the wrong wire, how were they dispositioned?
- Block 7 asks, can we locate any previous occurrences of the wrong weld wire being used?
- Block 8 asks, if action is not taken, what will result from use of the wrong weld wire?

Appendix G - Effectiveness Review

Development of Effectiveness Review Criteria

Effectiveness review criteria provide a basis for determining whether the preventive actions, derived from the cause evaluation for an issue, once implemented, provide effective resolution of the issue.

Effectiveness review criteria are used to draw a conclusion regarding resolution of the issue. Effectiveness review criteria are established at the same time corrective actions are developed and are included in the RCE report. They help identify what success looks like. Examples include:

- During a management assessment, the Quality Assurance organization discovered that contrary to requirements, a significant number of completed surveillance reports did not have a cause code documented.
- Effectiveness criteria: 95 percent or more of the surveillance reports needed to document the cause code.
- A CR described an issue where Level A CRs were not being resolved in a timely manner.
- Effectiveness criteria: Performance indicators measure timeliness of Level A CRs on a monthly basis.

Five months after corrective actions were completed an effectiveness review was performed reviewing the timeliness of Level A CRs.

Effectiveness criteria: *Level A CRs had been completed within the time limits established by procedure.*

The Effectiveness review criteria established during the cause evaluation are to be used as a basis for performing the review and determining effectiveness of the corrective actions. Other effectiveness criteria could be established for the following:

- Compliance requirements have been met.
- Similar work has been performed without incident since corrective action implementation.
- Trending demonstrates that improvements beyond an established baseline have been achieved. Interviews indicate consistent understanding of process requirements.

Some issues may warrant the performance of a follow-up Effectiveness Review to gauge sustained effectiveness of actions. For example, six months to a year after the initial Effectiveness Review management may determine that a wide-spread programmatic issue, effecting multiple programs and/or projects/organizations should have a follow-up Effectiveness Review.

Appendix G – (Cont.)

Performance and Documentation of Effectiveness Review

- An Effectiveness Review Team Lead must have completed *Responsible Manager Issues Management*, Course 600082 or *CPCCO Cause Evaluator Training*, Course 600081. Effectiveness reviews can be documented using the template provided on the Contactor Assurance/Condition Reporting and Resolution System webpage (http://cpc.cpcco.rl.gov/rapidweb/ca/index.cfm?pagenum=6) OR in a Worksite Assessment or Management Assessment. Regardless of the documentation method chosen, elements discussed in this appendix must be addressed. An example of the Effectiveness Review Template is provided on the following pages:

Appendix G – (Cont.)

Example

EFFECTIVENESS REVIEW REPORT

Issue Title

CR-YYYY-####

Date

Effectiveness Review Team Lead: _____ Date: _____

Responsible Manager: _____ Date: _____

Appendix G – (Cont.)

EXECUTIVE SUMMARY (if appropriate)

TABLE OF CONTENTS (if appropriate)

1.0 Purpose

Describe the purpose of an effectiveness review (i.e., to determine whether the actions taken have resolved the issue identified in the CR). Note the CR number and the significance of issue, and describe the issue. If multiple issues are addressed, provide information associated with each issue.

2.0 Scope

Define the scope of the effectiveness review: focus on locations, organizations, and personnel impacted by the issue.

3.0 Cause(s) and Actions

Provide a summary or list the cause(s) and actions.

4.0 Methodology

Identify the approaches used to conduct the effectiveness review. This may include a review of ICAS for similar issues; reviews of performance (trending) analyses/metrics; reviews of incidents/occurrence reports/precursors due to the same causes or behaviors or resulting in similar consequences; interviews; work observations or facility tours; simulations, exercises (such as emergency exercises), or tests (such as crane lift tests); and reviews of recent assessments, as appropriate to the evaluation.

5.0 Effectiveness Review Criteria

Identify the standards used to draw a conclusion regarding resolution of the issue. Refer to the associated cause evaluation for effectiveness review criteria established for significant issues. Other criterion examples may include:

- *Trending demonstrates that improvements beyond an established baseline have been achieved*
- *A high percentage of documents reviewed are complete*
- *Work observed was performed according to the procedure or work package*
- *Compliance requirements have been met*
- *Similar work has been performed without incident since preventive action implementation*
- *Established performance indicators are now in the "green" category*

Individuals interviewed communicated understanding of the new requirements.

Appendix G – (Cont.)

6.0 Date(s) Effectiveness Review Conducted

7.0 Data and Analysis

Present the data/information captured during the effectiveness review and provide a narrative describing the analysis of these data.

8.0 Conclusions

State your conclusion regarding the effectiveness of preventive action(s). The conclusion is a professional judgment based on an analysis of the data compared to the effectiveness review criteria.

(**Cautionary note:** Conclusions need to be focused on the scope of the original issue. If the effectiveness review team is able to determine the reason an issue was not resolved [e.g., corrective actions not implemented, inadequate cause evaluation], note this reason in the report.)

9.0 Recommendations

If the conclusion is partially effective or ineffective, recommend a course of action that focuses on elements that did not meet the effectiveness criteria. This course of action may include some or all of the following:

- *Close the issue with the acknowledgement that the issue was not resolved and with a justification for why the issue is being closed without resolution*
- *Revise the issue focusing on the areas still needing improvement*
- *Revise the issue to address the inadequacy of the corrective action plan*

If the conclusion is indeterminate due to insufficient run-time of action(s), reschedule and re-perform the effectiveness review.

10.0 Team Leader and Members

- Reminder: An Effectiveness Review Team Lead must have completed *Responsible Manager Issues Management*, *Course 600082 or CPCCO Cause Evaluator Training, Course 600081.*

List names and organizations/positions of effectiveness review team leader and members.

Appendix H - Example Cause Evaluation Report Template

NOTES:

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations

Title
(ORPS #/CR-YYYY-####)

Select One

ROOT/APPARENT CAUSE EVALUATION REPORT

Date

Team Leader: _____ Date: _____

Responsible Manager: _____ Date: _____

CARB/ESRB: _____ Date: _____

CPCco
Central Plateau Cleanup Company

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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EXECUTIVE SUMMARY

This is the "Cliff Notes" version of the report; it summarizes information detailed in the report. The executive summary should not exceed two pages and should:

- Provide an introduction, including the problem statement
- Briefly describe the event
- Identify the root and appropriate contributing cause(s)
- Identify the preventive actions that address those causes.

A table format of conclusions, causes, and preventive actions is an effective tool to summarize the evaluation.

- ✓ *Optional for Root Cause Evaluations*
- ✓ *Optional for Apparent Cause Evaluations*
- ✓ *Not Applicable for ORPS. However, information from this section may be useful in completing field 33.*

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

Cause Evaluation
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1.0 PROBLEM STATEMENT

Provide a concise statement of the problem that was evaluated. The problem statement is not a narrative of the event. The problem statement sets the stage for the evaluation. It provides focus for the evaluation and provides the "why do we care?"

The essential elements are:

- Who (by position)
- Did what or did not do what
- Where/under what circumstances
- With what potential or actual consequences – the context that says why we care

✓ Required for all cause evaluation reports
✓ DOE O 227.1 responses include original finding/issue statement and identify problem statement as a restatement of the issue.

2.0 EVENT DESCRIPTION

The event narrative should be the detailed story of the event and should include information from the timeline, conditions that influenced actions and outcomes, responses and reactions, and the significance of the event. The narrative should include "what happened" and "what did not happen". Depending on the complexity of the event, graphical presentation of timelines can be helpful.

Photographs, sketches, vendor information, for example, can greatly facilitate understanding of the problem, the evaluation, the causes, or the solution.

✓ Required for all cause evaluation reports
✓ ORPS reports: Consider information from this section for update to field 25, if appropriate. Note: ORPS Descriptions of events should be clear and succinct, avoiding redundant and unnecessary text and lengthy "log book" accounts, unless such discussion is considered essential to understanding the event. Reference CPCC-GD-EM-40409, CPCCo Occurrence Report Writer's Guide for additional direction.

3.0 HISTORICAL REVIEW (SIMILAR OCCURRENCES)

The historical or repeat event section should document any similar events found (on the Hanford Site). The corrective actions for these events should be evaluated to determine if they mitigated (or lessened) the results of this event or if they should have prevented or merely reduced the probability for recurrence of this event. If the corrective actions failed to prevent, mitigate, or reduce the probability of this event, discuss why the corrective actions for those events failed to do so. This may include review of CRRS, iCAS, and/or ORPS to identify similar occurrences.

✓ Required for Root Cause Evaluation
✓ Optional for Apparent Cause Evaluation
✓ ORPS Reports FIELD 37 (Similar ORPS Reports Only); Include discussion in field 32 or 33

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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4.0 EVALUATION OF ASSESSMENT PERFORMANCE

This section addresses the question: Why was the event found at this point in time and NOT found through earlier, cheaper, faster, and more reliable processes? Work with IEP PAC to obtain information. Also consider review of DOE-RL Operational Awareness Reports or Surveillances.

- ✓ Required for root cause evaluation reports
- ✓ Optional for apparent cause evaluation reports

5.0 PROBLEM EVALUATION

5.1 BACKGROUND

Provide any pertinent background information in addition to the event description information that will assist the reader in understanding the issue. An example is discussing the evolution of a requirement and its implementation over time resulted in a changing understanding of what activities were needed in order to be compliant.

- ✓ Optional *for root and apparent cause reports*

5.2 CAUSE EVALUATION DESCRIPTION

Identify the evaluation tools that were used and the results. Describe in detail the outcome of the analysis, making clear logical connections. It should be clear to the reader how the facts of the issue or event translate to the conclusion. Include analysis tools as attachments to the report.

At a minimum, clearly identify the root cause(s) / apparent cause(s) and other cause(s). Include sufficient detail to enable the reader to understand the evaluation process and how each cause was identified.

For more extensive reports, sub-tier section headings may be used to guide the reader through the evaluation.

Cause Evaluation Terminology

Keep the following terminology in mind as you perform the evaluation. *It may be useful to include appropriate definitions in your report*

A **causal factor** is an event or condition in the accident sequence that contributed to the unwanted result. There are three types of causal factors:

- **direct cause**, the immediate event(s) or condition(s) that caused the accident
- **root cause**, factor(s) that, if corrected, would have prevented recurrence of the event or issue/**apparent cause**, the factor(s) that, if corrected, would remedy the problem.
- **contributing cause**, the factor(s) that collectively with the other causes, increase the likelihood of the event or issue, but which did not cause the event or issue.

State the root/apparent cause(s) and list the facts and conclusions that led to and support each root cause. State why addressing this cause prevents the event from recurring.

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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As appropriate to the issue,

- State the contributing cause(s) and list the facts and conclusions that led to and support each contributing cause. State why this is NOT a root/apparent cause, that is, why correcting the contributing cause(s) will not prevent the event from recurring.
- Describe any compensatory actions taken.
- Describe preventive actions and link them with the causes.

Root cause evaluation should review the programmatic or organizational issues associated with the investigation and determine if programmatic or organizational issues are cause factors of the event.

- Programmatic issues control processes that work toward a goal. Examples of programmatic issues include: poor or non-existent standards, policies, or administrative controls (procedures), and insufficient scheduling requirements.
- Organizational issues often affect how programs and procedures are implemented. Examples of organizational examples include: Poor or non-existent communication and inadequate organizational planning.

This discussion is not necessary for apparent cause evaluation reports.

✓ Required for Root Cause Evaluation
✓ Required for Apparent Cause Evaluation
✓ Required for ORPS final reports (SC3 and higher). Include cause codes in field 31, analysis in field 32. Some information from this field can also be used to complete field 33. Reference analysis report (root or apparent) for additional information.
✓ Integrated Safety Management codes required for all root and apparent cause evaluations, and ORPS reportable events (field 35)

6.0 EXTENT OF CONDITION/CAUSE

Consistent with the significance/relative consequence of the problem, identify broader implications of the issue. Given what has been learned about this occurrence/event, where else might you expect to see it? The extent of condition review allows you to apply the information you learned through the evaluation to identify where there may be similar situations that can be corrected. Depending upon the issue, extent of cause should be addressed as well.

✓ Required for Root Cause Evaluation
✓ Required for Apparent Cause Evaluation
✓ Required for ORPS final reports. Include in field 33.

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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7.0 ACTIONS

Actions encompass:

- Immediate actions taken mitigate the event or to keep the event from recurring in the short term.
- Compensatory actions establish processes allowing the work to continue under more controlled conditions.
- Remedial actions FIX the identified issue.
- Preventive actions PREVENT the event and other events like it from recurring in the future, or REDUCE the probability of recurrence.

Actions should be linked with the specific cause they are intended to address and written in enough detail to demonstrate that the identified actions(s) will adequately address the cause(s). Remedial actions are not intended to be preventive. They correct the specifically identified adverse conditions, not causes.

A matrix that clearly links causes with actions may be included in the body of the report or as an attachment. An example cause/action matrix is shown below.

Cause	Action Description	Criteria for Action Closure/Closure Statement for Previously Completed Actions	Expected Results	Actionee	Completion Due Date

- ✓ Extract the appropriate information for ORPS reports.
- ✓ Required for Root Cause Evaluation.
- ✓ Required for Apparent Cause Evaluation.
- ✓ Extract appropriate information for ORPS reports (field 39). Immediate actions are listed in field 30 and are not required to be repeated in field 39.
- ✓ Cause/action matrix REQUIRED for all DOE O 227.1 Corrective Action Plans.

8.0 EFFECTIVENESS REVIEW CRITERIA

CPCCo is expending time and effort to address this issue/event. How will we know when we are done and what will success look like? This is often a first blush approach to establish effectiveness "goals" that may be enhanced when the effectiveness review plan is developed.

- ✓ Required for Root Cause Evaluation
- ✓ Optional for Apparent Cause Evaluation
- ✓ Effectiveness Review REQUIRED for all DOE O 227.1 Corrective Action Plans

Appendix H – (Cont.)

- See **CPCC-PRO-QA-052** for Cause Evaluation Report Requirements
- See **CPCC-PRO-EM-060** for ORPS Reporting Requirements
- See **CPCC-GD-EM-40409** for ORPS Field Alignment and Detailed Guidance on Report Field Content Expectations.

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9.0 LESSONS LEARNED/LESSONS TO BE LEARNED

The performance objective of a Lesson Learned is to incorporate relevant organizational learning and associated recommendations into work processes to:

- Proactively prevent operational events
- Remove organizational weakness that challenge or hinder company performance

Reference CPCC-PRO-MS-067, *Lessons Learned*

- ✓ Optional for Root Cause Evaluation
- ✓ Optional for Apparent Cause Evaluation
- ✓ Lessons Learned statement REQUIRED for SC3 and higher ORPS final reports (field 36). Formal Lessons Learned submitted to HILLS optional.

10.0 EXTRANEOUS CONDITIONS ADVERSE TO QUALITY

During the review, conditions adverse to quality may be identified that are not causal to the issue. If identified, note the issue and the CR number.

- ✓ Optional for all reports. If no extraneous conditions adverse to quality are identified, this section can be deleted.
- ✓ If not related to the event reported in ORPS, do not include in the ORPS report. If germane to the event reported, include information in field 32 or 33.

11.0 ATTACHMENTS

If the information is provided in the body of the report, attachments are not needed. If the information listed below is large or disruptive to the flow of the document, include as attachments. The following is an example of attachments that could be included with this report.

Attachment 1	Action Matrix
Attachment 2	List of Assessments Reviewed
Attachment 3	Cause Evaluation Team (Responsible Manager, Team Lead, and Team Members
Attachment 4	Corrective Action Review
Attachment 5	Evaluation Tools: Why Analysis, Event and Causal Factor Chart, Barrier Table
Attachment 6	List of Personnel Contacted
Attachment 7	List of Other Documents Reviewed
Attachment 8	Cause Evaluation Charter

Appendix H – (Cont.)

NOTES:

- SEE CPCC-PRO-QA-052 FOR CAUSE EVALUATION REPORTING REQUIREMENT
- SEE CPCC-PRO-EM-060 FOR ORPS REPORTING REQUIREMENTS
- SEE CPCC-GD-EM-40409 FOR ORPS FIELD ALIGNMENT AND DETAILED GUIDANCE ON REPORT FIELD CONTENT EXPECTATIONS.

-

Appendix I - OCRWM Related Issue Requirements

This appendix provides additional considerations for the screening and management of issues related to activities subject to DOE/RW-0333P, *Quality Assurance Requirements and Description* (QARD), including those identified during the performance of assessments and surveillances. These considerations are in addition to those contained in the body of this procedure.

Screening

DOE/RW-0333P defined 2 levels of issues to be addressed; Conditions Adverse to Quality (CAQ), and Significant Conditions Adverse to Quality (SCAQ). DOE/RW-0333P further defines as follows:

CAQ: An all-inclusive term used in reference to any of the following:

- Failures
- Malfunctions
- Deficiencies
- Defective items
- Nonconformance's

SCAQ: A condition adverse to quality that, if uncorrected, could have a serious effect on safety, operability, or the ability to isolate waste. Significant conditions adverse to quality include, but are not limited to:

- Loss, or potential loss, of a safety or waste-isolation function to the extent that there is a reduction in the degree of protection provided to the public health and safety;
- Loss or potential loss, of a safety or waste-isolation function to the extent that there is a reduction in the degree of protection provided for worker safety;
- Common-cause failures
- Any adverse quality trends.
- Repetitive conditions that are less significant but when taken collectively
    - Indicate programmatic failure to properly implement the QA program
    - May be precursors for significant technical deficiency or problem or
    - May reduce the margin of safety

OCRWM related issues meeting the criteria of a CAQ will be screened a minimum of Level C. OCRWM related issues meeting the criteria of a SCAQ will be screened as Level A.

Issues meeting the criteria of a SCAQ will be evaluated by the Contractor and Quality Assurance organization for stop work in accordance with DOE-0343, *Hanford Site Stop Work Procedure*.

Closure

- Upon closure of an OCRWM related issue (CR) in ICAS, the OCRWM Coordinator will generate a .pdf file of the CR and associated action closure documentation, and transmit that file to the Records Holding Area (RHA) in accordance with CPCC-PRO-QA-19579, *OCRWM Records Management.*

Appendix J - Glossary

Term	*Definition*
Action Request (AR)	A form used to document issues to be processed and tracked to closure in ICAS via a Condition Report (CR)
Administrator, ICAS (IM)	IM personnel assigned by the Manager, CQA, to perform actions in the ICAS database as directed.
Administrator, Project	Project personnel assigned by the Manager, CQA, to perform actions in the ICAS database, as directed, for project-specific issues.
Adverse Condition (AC)	An all-inclusive term used in reference to any of the following: deficiency, finding, noncompliance, failure, malfunction or inadequacy in implementation of an applicable requirement or performance standard (e.g., contract, regulation, safety basis, quality assurance program, authorization basis, or procedure). Note: Related to OCRWM identified issues, and Adverse Condition is equivalent to a Condition Adverse to Quality (CAQ).
Apparent Cause	The most probable cause(s) that explains why the event happened, that can reasonably be identified, that local or facility/program management has the control to fix, and for which effective recommendations for corrective action(s) to remedy the problem can be generated, if necessary.
Apparent Cause Team Lead	An individual, trained at a minimum to *Responsible Manager Issues Management* (Course 600082), assigned to guide the conduct of an apparent cause evaluation.
Assignee	Individual assigned by the Responsible Manager to complete evaluation or corrective actions.
Cause Analyst/Evaluator	Trained and/or qualified individual responsible for performing investigations/ evaluation, determining cause and EOC, and developing corrective actions.
Compensatory Action	Actions that are intended to offset the identified error or process defect described in the issue prior to identifying the cause of the issue or implementing the preventive action. 2. Used to allow the overall process to continue until actions to correct the issue are completed. 3. Actions compensate for the failure; the modified process will produce a quality product. In order to ensure the product will be compliant without knowing the cause of the issue, compensatory actions by nature are generally very restrictive and increase process cycle time.

Appendix I – (Cont.)

Term	*Definition*
Condition	A term used to refer to any item documented on a Condition Report. (See "Issue".)
Condition Report (CR)	A form used to process and track the disposition/closure of issues in ICAS from an Action Request (AR).
Contributing Cause	These causes are often identified in a formal evaluation as a cause that made the event worse (exacerbate) or reduced the impact of the cause (mitigate). Causes that made the event worse need to be corrected as they represent an unwanted condition.
Corrective Action (CA)	A generic term used collectively for remedial actions and preventive actions.
Corrective Action Plan (CAP)	The collective action(s), closure requirements, assignee(s), and schedule date(s) for resolving issues or causes.
Corrective Action Review Board (CARB)	The CARB is an extension of the ESRB and focuses on the health and effectiveness of the IM program. The CARB reviews, discusses, and approves root cause evaluations, apparent cause evaluations, project trends, resolution of IM program-related issues, direction for project assessments and selected Level A or B CRs.
Direct Cause	The direct cause represents the action or event that initiated the issue or event. Many formal evaluations often stop short at the "initiating event" and therefore recommend actions often focused on briefings or disciplinary action.
Effectiveness Review	A review (assessment, surveillance, evaluation, etc.) performed to determine if completed corrective actions have effectively resolved or reduced the probability of recurrence, or reduced the consequences of the issue/condition. (See discussion in Appendix G, "Effectiveness Review.")
Extent of Condition	The actual or potential applicability for an event or condition (e.g., failure, malfunction, condition, defective item, weakness, problem) to exist in other activities, projects, programs, facilities or organizations. (See discussion in Appendix F, "Extent of Condition Evaluation.")
Event	A real-time occurrence with negative consequence (e.g., pipe break, valve failure, loss of power, spill, flood, injury, accident).

Appendix I – (Cont.)

Term	*Definition*
Immediate Action	Actions that need to be taken in a timely manner to isolate and control the issue. Action implemented as soon as possible after identification for the purpose of mitigating or terminating the consequences. Used to “stop the bleeding.”
Interim Action	A general term referring to immediate or compensatory actions.
Issue	The term used in this procedure to refer to events, adverse conditions, recommendations, suggestions and opportunities for improvement, i.e., any situation that may warrant management attention.
Observation/Opportunity for Improvement (O)	Suggestions or recommendations for management consideration.
Potential Trend	A potential trend is an identified change, output, or tendency of a series of data points that has not yet been validated as a change that warrants action. Apparent statistical anomaly Issues recurring at more than one location Event or series of events for which additional information is available that increases the likelihood the issues are leading indicators of a potentially major event Suspicion - the series of events "feels" wrong and warrants additional investigation and analysis to determine if a trend truly exists
Preventive Action	Measures taken to preclude repetition, i.e., actions designed to prevent or reduce the likelihood of recurrence.
Remedial Action	Actions taken to correct specifically identified adverse conditions or designed to return the product to a compliant state.
Responsible Manager	Manager trained to Course CPCCo Responsible Manager, Issues Management 600082, assigned responsibility to oversee evaluation of the CR, to plan corrective action, and to bring the condition to closure.

Appendix I – (Cont.)

Term	*Definition*
Root Cause	The causal factor(s) that, if corrected, would prevent recurrence of the occurrence. It is the most basic cause that explains why the event happened, that can reasonably be identified, that senior management has the control to fix, and for which effective recommendations for corrective actions to remedy the problem, prevent specific recurrence of the problem, and preclude occurrence of similar problems can be generated, if necessary. This is typically one level further in analysis beyond the apparent cause(s).
Root Cause Team Lead	An individual trained and qualified to *CPCCO Root Cause Evaluation Team Leader, Qualification Card*, 600084, and assigned to lead the conduct of a root cause evaluation.
Strength/Good Practice (S)	Positive or exemplary performance identified during the oversight activity. Also known as Noteworthy Practice
Trend	A pattern of gradual change in a condition, output, or process that can be validated by data review, or an average general tendency of a series of data points to move in a certain direction over time.
Validated Trend	A validated trend is an identified change, output or tendency of a series of data points that has been validated as a change that warrants action. Event or series of events of conditions that has recurred, or where additional information or analysis has confirmed that it is an area of real degradation in performance, OR a precursor to a potentially major event Issue brought to management from outside influences, with instruction to treat as a validated trend for purposes of defining a credible immediate path forward.